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For: Pin-Array, Separable, Compliant Electrical Contact Member

ABSTRACT

A pin-array, separable, compliant electrical contact member for separably, electrically
5 interconnecting a first electrical device having electrical contacts to a second electrical device
having electrical contacts. The inventive device includes a probe housing having a thickness,
and defining a plurality of openings through the thickness, one or more pin probes, each pin
probe located in and protruding from an opening in the probe housing, and each defining an
enlargement larger than the opening in which the pin is located, to inhibit lateral pin motion, and
10 also prevent the pins from being removed from their openings vertically in at least one direction,
and a layer of Anisotropic Conductive Elastomer (ACE) adjacent to the probe housing and
comprising a plurality of conductive chains of particles through the layer thickness and aligned
generally perpendicularly to the layer's major surfaces. One end of the pin probes are in contact
with the electrical contacts of the first electrical device, and the other ends of the pin probes are
15 in compressive contact with a major surface of the ACE layer. The other major surface of the
ACE layer is in contact with the electrical device, such that electrical signals are passed between
the two electrical devices through the pin probes and the ACE layer.